

Claims

- [c1] A coupling device for conduits of pressurized media, said coupling device comprising: two coupling parts couplable together as a female part (1) and a male part (2) which is insertable into the female part; a locking device arranged to allow coupling of the male part with the female part and to, in an inner locking position, hold the coupling parts coupled together, the locking device comprises at least one locking member at one of the coupling parts that is arranged to, in said locking position, attach into a recess in the other coupling part with one or several sealing members being arranged to, in said locking position, achieve sealing engagement between the coupling parts, with the second coupling part having a further recess in which said locking member is brought into locking engagement of the coupling parts in an outer locking position at the coupling of the two coupling parts with each other, and in which outer locking position an incomplete sealing is achieved and in which the two coupling parts are locked and incompletely coupled together and thereby being prevented from coming apart and being allowed to be brought together to said inner locking position for a complete coupling of the coupling parts by means of which, in the presence of a pressurized media, an indication can be obtained that the outer locking position has been assumed due to the presence of leakage of pressurized media, and wherein the casing surface of one of the coupling parts exhibits a leakage groove which runs at an acute angle (ν) towards the radial plane of the coupling part with an axial inner end and an axial outer end, and is so positioned that in the inner locking position the leakage groove is positioned axially outside of the sealing member and in the outer locking position the axial inner end of the leakage groove is positioned axially inside of the sealing member and its axial outer end is positioned axially outside of the sealing member by means of which pressurized media can pass by the sealing member.
- [c2] The coupling device as recited in claim 1, wherein the leakage groove consists of a spiral-shaped groove.
- [c3] The coupling device as recited in claim 1, wherein the leakage indication consists of

an audible leakage sound.

- [c4] The coupling device as recited in claim 2, wherein the leakage groove is arranged in a radially inward facing casing surface of the female part and the sealing member consists of a sealing ring arranged in a radially outward facing casing surface of the male part.
- [c5] The coupling device as recited in claim 4, wherein the female part, in the casing surface axially outside of the leakage groove, exhibits a conical wall and the male part exhibits, axially outside of said sealing ring, a second sealing ring that in the inner locking position is in sealing contact with the conical wall, and in the outer locking position leaves free passage for pressurized media via a ring shaped gap between the sealing ring and the conical wall.
- [c6] A method for providing a coupling device for conduits of pressurized media, said method comprising: manufacturing two coupling parts which can be coupled to each other in the form of a female part (1) and a male part (2) which is insertable into the female part, with a locking device allowing the coupling of the male part to the female part and which in an inner locking position holds the coupling parts completely coupled together, with at least one locking member (11, 30) at one of the coupling parts (2,1) in said locking position attaching into a recess (12) in the other coupling part (1, 2), with one or several sealing members (6, 8) in said locking position achieving sealing between the coupling parts with the other coupling part (1, 2), exhibiting a further recess (16) in which said locking member is brought to locking of the coupling parts in an outer locking position when the two coupling parts are coupled to each other in which outer locking position there is in complete sealing, and in which the two coupling parts are locked and incompletely coupled together, so that they are prevented from coming apart, but are allowed to be further brought together to said inner locking position for the complete coupling of the coupling parts by means of which, in the presence of pressurized media, an indication that the outer locking position has been assumed can be obtained by means of the presence of leakage of pressurized media wherein upon the casing surface (21) of one of the

coupling parts (1,2) there is made a leakage groove which extends at an acute angle (v) towards the radial plane of the coupling part with an axial inner end (24) and an axial outer end (25), and is so positioned that in the inner locking position, the leakage group is positioned axially outside of the sealing member (6) and in the inner locking position the axially inner end of the leakage groove is positioned axially inside of the sealing member and its axially outer end is positioned axially outside of the sealing member, by means of which pressurized media can pass by the sealing member (6); and manufacturing the leakage groove (20) together with at least some surfaces of the two coupling parts (1, 2) by means of rotating machining.

[c7]

The method as recited in claim 6, wherein the relative rotational speeds, axial speed of movement and radial motion of the tool used for the rotating machining and the coupling part are synchronized so that the chosen extension of the leakage groove (20) is obtained.